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Families Matter: Social Support and Mental Health Trajectories Among Lesbian, Gay, Bisexual, and Transgender Youth

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A B S T R A C T

Purpose: Lesbian, gay, bisexual, and transgender (LGBT) adolescents are at greater risk for mental health problems than their heterosexual peers, in part due to victimization. Social support, particularly from families, has been identified as an important promotive factor. However, little is known about how LGBT youth experience multiple forms of support or how early support predicts mental health across adolescence and into young adulthood.
Methods: In an analytic sample of 232 LGBT youth aged 16–20 years at baseline across 5.5 years, we compared developmental trajectories of psychological distress between three empirically derived social support cluster types at baseline: those who reported uniformly low support, those who reported uniformly high support, and those who reported nonfamily support (i.e., high peer and significant other but low family support).
Results: Longitudinal multilevel modeling, controlling for age, victimization, and social support at each wave, indicated key differences between cluster types. Youth in the low and nonfamily support clusters reported greater distress across all time points relative to youth in the high support cluster; however, they also showed a sharper decline in distress. Youth in the nonfamily cluster gained family support across adolescence, such that they resembled youth in the high support cluster by early adulthood.
Conclusions: Findings underscore the importance of family support for LGBT youth. Youth who lack family support, but who have other forms of support, report a decrease in psychological distress and an increase in family support across adolescence. Youth who are low in all forms of support continue to exhibit high distress.
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IMPLICATIONS AND CONTRIBUTION

This study examines mental health trajectories for lesbian, gay, bisexual, and transgender youth in different social support cluster types at baseline. Youth in the low and nonfamily support types showed higher distress overall but also decreased in distress quicker than youth in the high support type. Family support increased for some youth over time.

Adolescence is a time of mental health risk among lesbian, gay, bisexual, and transgender (LGBT) youth, who show elevated suicidality, depression, anxiety, self-harm, and substance use relative to their heterosexual and cisgender peers [1–5]. This is partially explained by higher rates of victimization [1–4]; LGBT youth who experience high or increasing victimization across adolescence are at greatest risk [6]. Although the climate around LGBT issues is improving, LGBT adolescents continue to report alarming rates of victimization [7]. Growing awareness of these disparities has promoted critical adolescent LGBT health research. However, work is needed that moves beyond risk by attending to social context and building knowledge about promotive factors like social support [1–3,8,9]. Although LGB youth report lower support than their heterosexual peers [2,10], support may have a stronger promotive effect than for heterosexual youth as it mitigates LGB youth's higher rates of suicidality [11].

Conflicts of Interest: The authors have no conflicts of interests to declare.

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Families are an important developmental context for adolescents and for LGBT youth are an underresearched domain that may heighten both risk and resilience [7]. Families may reflect societal stigma regarding sexual and gender minorities and function as a source of stress and discrimination for LGBT youth. Like other experiences of rejection [12], family rejection places LGBT youth at risk for adverse mental health outcomes [1–3,9]. LGB youth who reported high family rejection were 8.4 times more likely to have attempted suicide, 5.9 times more likely to experience high levels of depression, and 3.4 times more likely to use illicit substances than those who reported little or no family rejection [13]. Transgender youth report parental rejection as a significant stressor, which may contribute to suicidality and other negative mental health outcomes [1]. Family rejection can also lead to homelessness, which in turn puts youth at greater risk for adverse health outcomes [2]. LGBT youth represent 40% of the clientele of youth homelessness agencies, and family rejection due to sexuality or gender identity was the most frequently cited reason for their homelessness [14].

On the other hand, family support has been linked with increased well-being across a number of domains, including lower suicidality, distress, depression, hopelessness, and substance use [1–3,15–20]. Family acceptance has been associated with higher self-esteem and physical and mental health [20] and family sexuality support with decreased distress [21]. However, families are not always willing or able to provide this support [9,16,21], and LGB youth find some forms of family support less helpful than their heterosexual peers [22]. LGBT youth report more positive experiences of peer support, which may be why they describe peers as their primary source of support [9] and tend to obtain sexuality support from sexual minority peers [21]. Given these complexities, researchers have called for examinations of the different forms of social support for LGBT youth [23]. Research comparing family, peer, and significant other support found that family support was more promotive of mental health among heterosexual and LGB adolescents [24–26] and had a greater impact on LGB youth's self-acceptance of sexual orientation [25]. Cross-sectional research has linked parent support to lower depression and greater self-esteem among LGB youth; however, longitudinal research is needed to better understand these associations [26].

LGBT youth receive different levels of support in different places, and these forms of support may be differentially associated with health. Thus, a holistic perspective is needed that moves beyond a single domain (e.g., family, peers) to consider how multiple forms of support may collectively impact well-being [9,26]. To this end, a social support typologies framework is appropriate [27]. These typologies illustrate how different forms of support may co-occur (e.g., low family support accompanied by high friend support) and allow analysis comparing health outcomes across different patterns of support.

Identification of social support typologies

Our prior study utilized baseline observations of the current longitudinal sample of LGBT youth [27] to understand patterns of support and mental health. Using cluster analysis, this study identified three distinct social support typologies (Figure 1) based on relative levels of family, friend, and significant other support reported by LGBT youth: (1) low support cluster type (uniformly low support); (2) high support cluster type (uniformly high support); and (3) nonfamily support type (high friend and significant other but low family support) [27]. Notably, the majority of youth (56%) reported relatively low family support and consequently fit into the low or nonfamily support clusters. Relative to youth in the high support cluster, youth in these two clusters reported significantly greater loneliness, depression, somatization, suicidality, and psychological distress [27]. Those in the low support cluster also reported significantly greater hopelessness and anxiety than the high support cluster. There were no differences between the cluster types on gender identity, sexual orientation, race, or living situation [27]. Although this work illustrated the value of a social support typologies framework, it also raised new questions, such as how social support type impacts mental health across adolescence and into young adulthood.

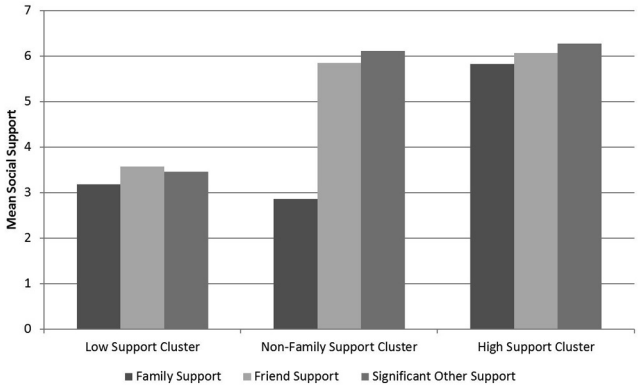

Figure 1. Mean social support by cluster type.

Social support across development

Adolescent health researchers underscore the importance of developmental trajectories of risk and resilience across adolescence and into adulthood [2,8]. The transition to young adulthood is a crucial developmental phase for LGBT youth: disclosure of sexual identity is most likely to take place, and behavioral patterns are established that have lasting impacts on well-being [23]. However, the lack of LGBT youth research is particularly acute for longitudinal studies [28], and researchers have called for longitudinal examinations of family support specifically [2,3,8,9,15,17,23]. Existing longitudinal work found that parental support was negatively associated with depression, suicidality, and distress while conflict was positively associated with distress across adolescence [29,30]. Cross-sectional research with LGBT young adults found that, while accounting for friend and community support, family support predicted a more positive life situation (e.g., educational attainment, employment), general self-esteem, and LGBT self-esteem [17].

An earlier study with data from the first 3.5 years of the current sample provided the first comprehensive examination of longitudinal mental health and victimization trajectories for LGBT youth [31]. In this earlier study, we found that both victimization and psychological distress decreased across development. Surprisingly, overall levels of support did not change, and although overall support predicted lower distress cross sectionally (while controlling for victimization), it showed no impact on distress longitudinally (using time-lagged models). This could indicate that support provides a short-term effect but

may not reduce distress over time [31]. However, this analysis did not examine specific forms of support or, moreover, if typologies of support were associated with different mental health trajectories.

Present investigation

In the present study, we build on our prior social support typologies framework [27] and examination of trajectories of mental health [31] to address several important gaps in the developmental literature on LGBT youth. We used longitudinal multilevel modeling to test differences in trajectories of psychological distress across the three social support cluster types (developed using baseline measurements). This approach allowed us to examine how multiple forms of support co-occur to shape well-being and how early experiences of support may have lasting effects across adolescence and into young adulthood.

Method

Participants and procedures

Participants were 248 youth aged 16–20 years at enrollment who were part of Project Q2, a longitudinal study that included eight waves of data collection over 5.5 years [31,32]. Initial observations occurred between May 2007 and December 2008, and average time between observations was 9.23 months (standard deviation [SD] = 4.01, range 5.9–15.8). Participants lived in the Chicago area and self-identified as LGBT, "queer," "questioning," or same gender attracted. Participants were recruited using incentivized peer recruitment and advertisements distributed by email, cards, and flyers in LGBT-identified neighborhoods and events. Sixteen participants were dropped due to missing data or being outside of the baseline age requirement (determined using identification-based age verification), resulting in an analytic sample of 232. Of these participants, 109 were assigned male and 123 were assigned female at birth; 96 identified as male, 113 as female, and 22 as transgender; 143 identified as gay or lesbian, 66 as bisexual, and 22 as questioning, unsure, or heterosexual; 128 identified as African-American, 35 as white, 29 as Hispanic/Latino, and 40 as other (including multiracial, Asian, and Native American); 17 identified as upper class, 162 as middle class, and 52 as lower class; 137 lived with their parents, 69 lived in other stable housing, and 25 lived in unstable housing; and the mean age at baseline was 18.75 (SD = 1.33). Further description of the sample is published elsewhere [31,32]. The institutional review board approved the Project Q2 protocol.

Measures

Social support. The Multidimensional Scale of Perceived Social Support is a 12-item scale with three subscales: family (e.g., "My family really tries to help me"), peer (e.g., "I can talk about my problems with my friends"), and significant other support (e.g., "There is a special person with whom I can share my joys and sorrows") [33]. Response options range from 1 (very strongly disagree) to 7 (very strongly agree), with higher scores indicating greater support (α = .89). Social support was included in the current study in two ways. *Social support at wave* assessed participants' overall social support using their total score on the Multidimensional Scale of Perceived Social Support at each time point. *Social support cluster type* was identified in previous research using a two-step procedure [34] (i.e., hierarchical cluster analysis using the method by Ward [35] followed by k-means cluster analysis) to identify common combinations of family, friend, and peer social support at baseline [27]. The three cluster types identified were as follows:

Low support cluster type. Fifty (21.6%) participants were in this cluster type, which was characterized by low levels of family (mean [M] = 3.18, SD = 1.21), peer (M = 3.57, SD = 1.14), and significant other (M = 3.46, SD = 1.19) support.

Nonfamily support cluster type. Eighty (34.5%) participants were in this cluster type, which was characterized by low levels of family support (M = 2.86, SD = 1.09) and moderate levels of peer (M = 5.85, SD = 1.04) and significant other (M = 6.11, SD = .88) support.

High support cluster type. One hundred two (44.0%) participants were in this cluster type, which was characterized by high levels of family (M = 5.82, SD = .86), peer (M = 6.07, SD = .92), and significant other (M = 6.27, SD = .81) support.

Our earlier study provides additional information, including cluster demographics [27].

LGBT victimization. Frequency of victimization on the basis of LGBT identity was assessed using a 10-item scale based on the work of D'Augelli et al. [36]. Items assess past 6-month frequency of verbal and physical threats, assault, and property damage on the basis of LGBT identity (e.g., "How many times have you been punched, kicked, or beaten because you are LGBT?"). Response options range from 0 (never) to 3 (three times or more), with higher scores indicating greater experiences of victimization (α = .87).

Psychological distress. Psychological distress was assessed using the 18-item Brief Symptom Inventory [37], which has been widely used as a screening tool in clinical research and service provision. Items assess distress during the past week (e.g., "feeling hopeless about the future"). Response options range from 0 (not at all) to 4 (always), with higher scores indicating greater distress (α = .83).

Analytic strategy

We examined cluster differences in psychological distress across adolescence using multilevel modeling on eight waves of data collection in SAS 9.4 (SAS Institute Inc., Cary, NC). Multilevel modeling accounts for dependency in observations (e.g., multiple observations within the same person), which makes it well suited for longitudinal data. We followed Schafer and Graham's [38] guidelines for missing data and used full-information maximum likelihood estimation, which uses all available observations rather than removing or using estimation to fill in incomplete cases. We did not find associations between wave nonresponse and study variables and consider data to be missing at random. All analyses controlled for the following between-person covariates: sex assigned at birth (dummy coded as female and male with male as the reference group), race (dummy coded as white, Hispanic/Latino, African-American, and other with African-American as the reference group), and age of first observation (centered at 16). We also included the following within-person variables in all models:

Table 1
Multilevel modeling of psychological distress across adolescence

Variable	Psychological distress							
	Model 1		Model 2		Model 3		Model 4	
	β (SE)	*t*	β (SE)	*t*	β (SE)	*t*	β (SE)	*t*
Intercept	1.26 (.10)	12.81**	1.25 (.10)	12.16**	1.15 (.11)	10.56**	.99 (.12)	8.31**
Between-person covariates								
Male birthsex	−.16 (.06)	−2.66**	−.15 (.06)	−2.57*	−.17 (.06)	−2.98**	−.17 (.06)	−2.81**
Race								
White	.21 (.09)	2.47*	.20 (.08)	2.38*	.23 (.08)	2.80**	.23 (.08)	2.68**
Hispanic/Latino	.16 (.09)	1.79	.15 (.09)	1.64	.17 (.09)	1.93	.17 (.09)	1.86
Other	.21 (.08)	2.60**	.20 (.08)	2.48*	.20 (.08)	2.54*	.20 (.08)	2.57*
African-American[a]	—	—	—	—	—	—	—	—
Baseline age[b]	.06 (.02)	2.57*	.06 (.02)	2.56*	.05 (.02)	2.39*	.05 (.02)	2.35*
Within-person variables								
Age at wave[b]	−.06 (.01)	−8.37**	−.06 (.01)	−7.23**	−.06 (.01)	−7.30**	−.03 (.01)	−2.69**
Victimization at wave	.28 (.03)	8.35**	.28 (.03)	8.15**	.27 (.03)	7.96**	.26 (.03)	7.77**
Social support at wave	−.11 (.01)	−8.81**	−.10 (.01)	−8.64**	−.10 (.01)	−7.83**	−.09 (.01)	−7.63**
Between-person variables								
Low support cluster type					.25 (.08)	3.22**	.52 (.14)	3.84**
Nonfamily support cluster type					.07 (.06)	1.13	.33 (.11)	2.94**
High support cluster type[a]					—	—	—	—
Cross-level interaction								
Age at wave × low support cluster							−.05 (.02)	−2.46*
Age at wave × nonfamily support cluster							−.05 (.02)	−2.79**
Age at wave × high support cluster[a]							—	—
Variance components								
σ^2	.24 (.01)	25.73**	.22 (.01)	23.50**	.22 (.01)	23.50**	.22 (.01)	23.54**
τ_0^2	.14 (.02)	8.33**	.32 (.06)	5.67**	.30 (.05)	5.50**	.29 (.05)	5.43**
τ_{10}			−.03 (.01)	−3.49**	−.03 (.01)	−3.38**	−.02 (.01)	−3.12**
τ_1^2			.00 (.00)	3.13**	.00 (.00)	3.11**	.00 (.00)	2.84**
Selected fit statistics								
Akaike Information Criteria	2,662.1		2,580.6		2,574.5		2,568.8	
−2 log likelihood	2,574.2		2,554.6		2,544.5		2,534.8	

*$p < .05$; and **$p < .01$.
SE = standard error.
[a] Reference group.
[b] Centered at 16. Model 1 includes a random intercept only. Models 2, 3, and 4 include a random intercept and slope.

age at observation (centered at 16), past 6-month victimization at observation, and overall social support at observation. This allowed us to examine the extent to which baseline social support cluster type accounted for psychological distress across all observations, over and above demographics, victimization, support, and age at each wave. Models 1 and 2 included the between-person covariates (i.e., birth sex, race, and baseline age) and within-person variables (i.e., age, victimization, and social support at observation) described above. Model 1 included a random intercept only (allowing parameters to vary between people), while model 2 included a random intercept and slope (allowing parameters to vary between people and over time). Model 3 added baseline social-support cluster type (dummy coded with the high support type as the reference group) as a between-person variable to test cluster differences in mean psychological distress across adolescence. Finally, model 4 tested a cross-level moderation of cluster type on the trajectories (i.e., slopes) of distress across adolescence.

Results

Cluster differences in mental health trajectories

First, we examined the estimated intraclass correlation (ICC) to determine how much variance in psychological distress existed between individuals or within individuals over time. We found that 44.5% of the variance existed between individuals (ICC, .445) and 55.5% existed within individuals over time. This indicated that individual distress varies substantially over time, and greater variance can be explained longitudinally within people than between people.

Next, we tested Model 1, a random-intercept model predicting average psychological distress across all time points using between-person covariates and within-person variables. Model 2 was identical to Model 1 but added a random slope. The random slope improved model fit and was included in all subsequent models. Results of both models were consistent with past research: victimization at wave positively predicted while distress overall support at wave and age at wave negatively predicted distress (i.e., distress decreased across adolescence).

Model 3 tested whether the low and nonfamily support clusters differed from the high support cluster in average distress across adolescence (while accounting for variables included in Models 1 and 2). Adding cluster type improved model fit. Results showed that membership in the low support type was associated with greater distress across all observations relative to the high support type; there were no significant differences between the nonfamily support type and the high support type.

Model 4 added a cross-level interaction between age at wave and social support cluster type to examine whether there were cluster differences in the slopes of psychological distress across adolescence. Model 4 showed the best model fit of all models. We found a significant cross-level moderation where the low and nonfamily support cluster types showed a greater decrease in

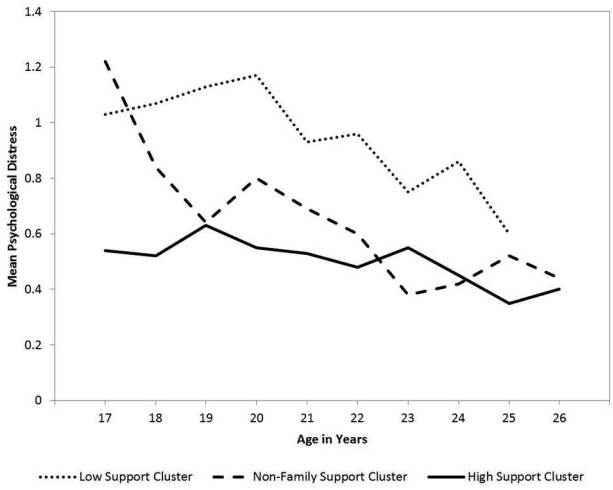

Figure 2. Trajectories of psychological distress by cluster type.

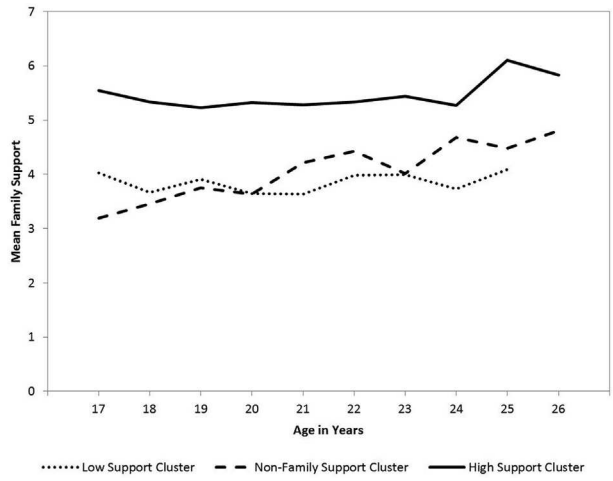

Figure 4. Trajectories of family support by cluster type.

distress across adolescence relative to the high support cluster. The effect of age at wave decreased relative to Model 3, indicating that the cross-level moderation appears to account for much of the developmental trajectory of psychological distress. For an overview of results, see Table 1.

Plotting trajectories of change

To better understand these differences, we plotted trajectories of psychological distress by cluster group. These trajectories showed interesting differences consistent with the cross-level moderation findings. Although all cluster types decreased in distress across adolescence, this decrease was more dramatic for the low and nonfamily support cluster types than for the high support cluster type (Figure 2). At age 17, participants in the nonfamily support cluster were the highest in distress; by the final wave, they were almost as low as participants in the high support cluster.

Figure 3 depicts trajectories of overall support and illustrates that all cluster types changed minimally across adolescence.

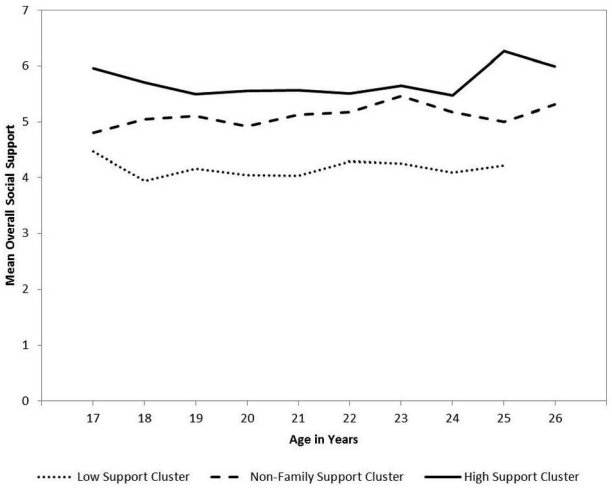

Figure 3. Trajectories of general social support by cluster type.

We then examined trajectories of family, friend, and significant other support separately by cluster type. Similar to overall support, friend and significant other support appeared stable across adolescence. Family support showed a strikingly different story (Figure 4). Although the low and high support clusters appeared stable, participants in the nonfamily support cluster, who reported the lowest family support at age 17, reported a steady increase in family support.

Discussion

This is one of the first studies to examine social support and mental health longitudinally among LGBT youth. Findings highlight the importance of early typologies of support in promoting lasting well-being for LGBT youth. In our final model, youth who lacked family support (i.e., youth in the low and nonfamily clusters) experienced higher distress across adolescence and young adulthood than youth who received this support (i.e., youth in the high support cluster), even when controlling for victimization and overall support at each wave. By using a typologies framework to understand how multiple forms of support co-occur, we are able to move beyond specific forms of support to consider how they operate in tandem. LGBT youth who lack family support early in adolescence—even those who report high levels of other forms of support—remain at higher risk for adverse mental health outcomes across adolescence and into young adulthood and are thus important targets for early prevention intervention.

We were also interested to see if specific forms of support changed across adolescence for each cluster type. Consistent with previous findings [31], trajectories of overall social support appeared stable across adolescence. However, youth in the nonfamily support cluster reported a marked increase in family support across adolescence. We do not know what leads to this increase in family support or why these families may have become less rejecting over time. We do not see a concurrent increase in family support among youth in the low support cluster, which suggests that some mechanism other than the passage of time may be at work. Perhaps youth in the nonfamily support cluster have psychosocial or material resources that enable them to seek and eventually receive greater support from

their families. Alternatively, parents may grow more accepting as they observe youth receiving support and acceptance from peers and significant others. Specific experiences, such as counseling, support groups for parents, or learning more about LGBT communities, may decrease parental rejection and increase support. Some youth may report changes in their sexuality and/or gender identity across adolescence, which may affect the level of family support they receive. LGBT youth homelessness due to family rejection is a major concern [14], and many youth in the nonfamily cluster reported being unstably housed at baseline [27]. Future research should examine factors that might lead to this increase in family support, which could inform interventions to prevent homelessness and improve well-being among LGBT youth.

While youth in the low and nonfamily support clusters showed higher overall distress than youth in the high support cluster, they also showed dramatic improvements in mental health across adolescence and young adulthood. Ultimately, they approached the low levels of psychological distress reported by youth in the high support cluster. Thus, even though youth who lack early family support experience greater distress across adolescence, they also show great resilience over time.

Limitations and directions for future research

This analysis builds on previous studies with this sample by incorporating an additional 2 years of data collection and integrating baseline typologies of social support, which addresses a gap in literature on the promotive impact of specific forms of support across adolescence and into young adulthood. However, the current study has several limitations. First, findings may be specific to this community sample of majority African-American LGBT adolescents and young adults from Chicago. Future research should seek to replicate the cluster analysis and longitudinal findings with other populations of LGBT adolescents. Participants in this study reflect a wide range of sexual and gender identities, and future research should attend to specific subgroups. Research on transgender youth in particular is needed, as transgender youth may show different patterns of support and distress across development than sexual minority youth. Second, this analysis focused on cluster types defined by specific forms of social support at baseline. Although we accounted for overall support at each time point and visualized trajectories of support, it was outside the scope of this paper to empirically test different social support trajectories. Future research may wish to use latent class profile analysis to examine combinations of social support over time or log-linear models to assess whether LGBT youth change social support cluster type throughout adolescence and early adulthood. Third, we examined family support within the holistic context of an individual's cluster group membership, which is a strength of the person-centered approach of cluster analysis. However, future research may wish to test the role of family support using variable-centered analysis.

Overall, study findings contribute to the limited body of knowledge about social support and mental health among LGBT youth. Early experiences of support had a lasting impact on the mental health of the youth in this study, illustrating that early support is important across adolescence and young adulthood. Family support appears to be particularly important in promoting lasting well-being. Encouragingly, some youth who lacked this support early in adolescence gained support from their families over time. Finally, LGBT youth in all social support cluster types showed resilience and tended to "get better" over time [39].

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